

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the above-identified application.

Listing of Claims:

1. (Currently amended) A method for delivering analgesia to an individual comprising:
administering to the bloodstream of the individual an effective amount of an analgesic molecule to be transported across a blood-brain barrier, wherein the analgesic molecule is a glycosylated peptide enkephalin comprising a formula of (L)-Tyr-(D)-~~Thr~~-(L)-Gly-(L)-Phe-(L)-Leu-(L)-Ser-(β -disaccharide)CONH₂, wherein the peptide region of the molecule comprises (L)-Tyr-(D)-~~Thr~~-(L)-Gly-(L)-Phe-(L)-Leu-(L)-Ser, defined as SEQ ID NO: 35, wherein the peptide binds to an opioid receptor, wherein (L)-Ser is linked to the β -disaccharide through an O-linkage, wherein "x" is a D-amino acid, defined as D-threonine, and wherein the β -disaccharide sugar is selected from the group consisting of β -lactose, β -maltose, and β -melibiose.
2. (Canceled)
3. (Currently amended) The method as claimed in claim 1, wherein the glycosylated enkephalin is selected from the group consisting of
(L)-Tyr-(D)-Thr-(L)-Gly-(L)-Phe-(L)-Leu-(L)-Ser-(β -lactose)CONH₂,
(L)-Tyr-(D)-Thr-(L)-Gly-(L)-Phe-(L)-Leu-(L)-Ser-(β -maltose)CONH₂, and
(L)-Tyr-(D)-Thr-(L)-Gly-(L)-Phe-(L)-Leu-(L)-Ser-(β -melibiose)CONH₂
SEQ ID NO:25, SEQ ID NO:27 and SEQ ID NO:30.

4. (Currently amended) A method for modifying a peptide enkephalin to enable the peptide to be transported across a blood-brain barrier, the method comprising the step of:

glycosylating an L-Ser residue of a peptide, (L)-Tyr-(D)-~~x~~ Thr-(L)-Gly-(L)-Phe-(L)-Leu-(L)-Ser-~~defined as SEQ ID NO: 35~~, with a disaccharide moiety to form a glycosylated peptide enkephalin having a formula of (L)-Tyr-(D)-~~x~~ Thr-(L)-Gly-(L)-Phe-(L)-Leu-(L)-Ser-(β -disaccharide)CONH₂, wherein the peptide binds to an opioid receptor, wherein L-Ser of the peptide is linked to the β -disaccharide through an O-linkage, wherein "~~x~~" is ~~D-threonine~~, wherein the disaccharide is selected from the group consisting of lactose, maltose, and melibiose; ~~wherein the modified peptide enkephalin is selected from the group consisting of SEQ ID NO:25, SEQ ID NO:27 and SEQ ID NO:30.~~

5.-6. (Canceled)

7. (Currently amended) A pharmaceutical composition comprising a glycosylated enkephalin peptide capable of being transported across a blood-brain barrier, the glycosylated peptide comprising a formula of (L)-Tyr-(D)-~~x~~ Thr-(L)-Gly-(L)-Phe-(L)-Leu-(L)-Ser-(β -disaccharide)CONH₂, ~~wherein "x" is D-threonine~~, wherein the disaccharide is selected from the group consisting of lactose, maltose and melibiose, wherein the glycosylated peptide is selected from the group consisting of

(L)-Tyr-(D)-Thr-(L)-Gly-(L)-Phe-(L)-Leu-(L)-Ser-(β -lactose)CONH₂,
(L)-Tyr-(D)-Thr-(L)-Gly-(L)-Phe-(L)-Leu-(L)-Ser-(β -maltose)CONH₂, and
(L)-Tyr-(D)-Thr-(L)-Gly-(L)-Phe-(L)-Leu-(L)-Ser-(β -melibiose)CONH₂
SEQ ID NO:25, SEQ ID NO:27 and SEQ ID NO:30.

8. (Currently amended) A glycosylated enkephalin peptide compound comprising the formula (L)-Tyr-(D)-Thr-(L)-Gly-(L)-Phe-(L)-Leu-(L)-Ser-(β -disaccharide)CONH₂, wherein the disaccharide is β -melibiose, the compound defined as (L)-Tyr-(D)-Thr-(L)-Gly-(L)-Phe-(L)-

Leu-(L)-Ser-(β -melibiose)CONH₂, ~~SEQ ID NO:39~~, and wherein the compound is capable of transportation across the blood-brain barrier.

9. (Currently amended) A glycosylated enkephalin peptide compound comprising the formula (L)-Tyr-(D)-Thr-(L)-Gly-(L)-Phe-(L)-Leu-(L)-Ser-(β -disaccharide)CONH₂, wherein the disaccharide is a β -lactose, the compound defined as (L)-Tyr-(D)-Thr-(L)-Gly-(L)-Phe-(L)-Leu-(L)-Ser-(β -lactose)CONH₂, and wherein the compound is capable of transportation across a blood-brain barrier.

10. (Currently amended) A glycosylated enkephalin peptide compound comprising the formula (L)-Tyr-(D)-Thr-(L)-Gly-(L)-Phe-(L)-Leu-(L)-Ser-(β -disaccharide)CONH₂, wherein the disaccharide is a β -maltose, the compound defined as (L)-Tyr-(D)-Thr-(L)-Gly-(L)-Phe-(L)-Leu-(L)-Ser-(β -maltose)CONH₂, ~~SEQ ID NO:27~~, and wherein the compound is capable of transportation across a blood-brain barrier.

11. - 13. Cancelled.